COLECTOMY, INPATIENT, PATHWAY

Updated: August 23, 2022

Clinical algorithm:

PreProcedure

- Decision to proceed with Colectomy
- Surgeon Enters Case Request
- Provider documents patient visit and orders appropriate testing and labs utilizing Preoperative Colorectal Surgery Orderset including ERAS medications
- Determine if patient is appropriate for referral to Surgical Optimization Center (SOC)
- Consider available clinical trials and discuss with patient. Contact program nurse.
- Patient signs Surgical Consent and Blood Consent
- EPIC Surgery Scheduling
- Patient visit to SOC, if appropriate
- Patient completes appropriate at home prep
- Patient arrives to hospital on day of surgery

*Note updated guidelines for penicillin allergic patients. These patients can receive Cefazolin and Metronidazole and don’t require alternative antibiotics.
Preoperative

1. Patient arrives to hospital on day of surgery
2. Pre-Warming to prevent hypothermia
3. Do Not Clip Operative Site
4. CHG wipes on abdomen/surgical site
5. Nurse Starts IV IV Rate: 2cc/kg/hr
6. VTE Prophylaxis Administered (heparin or lovenox)
7. Administer ordered preop medications
8. If no VTE prophylaxis or antibiotics ordered, RN to notify physician
9. Antibiotics validated and started as appropriate
Intraoperative

Patient transferred to operating room

Pre Procedure Briefing
Completed by OR team

Verify room temperature

Sequential compressive devices applied

Alcohol based skin prep completed

Verify Clear Sight use in applicable locations.

Time Out

Intraoperative warming device applied & temperature probe in use

IV Fluid restriction
3cc/kg/hour
Max: 300cc/hour

Specimen briefing and appropriate labeling

Colon Closing Protocol

Surgical team representative performs ICU hand off if applicable.

Postop Debrief

Patient transferred to PACU

Surgical team representative performs ICU hand off if applicable.
Postoperative

Patient arrives in the PACU

Surgical team representative performs PACU handoff.

Utilize Postoperative Colorectal Surgery Orderset:
- VTE Prophylaxis: Heparin and SCDs prechecked
- Scheduled analgesics acetaminophen and gabapentin prechecked
- Moderate to Severe pain PRN analgesics oxycodone prechecked

Temperatures less than 36.0, active warming started

IV Fluids
IV Rate: 100ml/hr and adjust as needed

Patient arrives to floor

Educate patient and family on enhanced recovery after surgery (ERAS). Forms at bedside

Early Ambulation
- Exercises in bed (range of motion)
- 6-8 hours per day in chair
- Ambulate 4 times a day
- Out of bed for every meal

Multimodal analgesia
- Tylenol (every 6 hours) and NSAID/gabapentin
- Muscle relaxants
- Break through pain, opioid ordered

Enterol continued post op
- Open cases 5 days
- Consider d/c post op for Laparoscopic cases

Early Alimentation
- Chew gum or hard candy
- POD 0 liquid diet
- Advance as tolerated
- Avoid NG tubes and drains when possible

IV: 75ml/hr for first day
Discontinued to saline lock

Round morning of POD3 with goal to discharge

Discharge criteria met:
- bowel function
- tolerating oral diet intake
- oral pain medication
- no signs of infection

Opiate prescription recommendations

Patient is discharged with AVS instructions. Utilize Discharge Orderset

Surgeon Appt for Follow Up within 7-14 days

Oxycodone 5 mg tablets
- Colectomy - Laparoscopic
  - 0-10
- Colectomy - Open
  - 0-15
- Ileostomy/Colostomy
  - 0-15
- Creation, Re-siting, or Closure
- Small Bowel Resection or Enterolysis - Open
  - 0-15
Clinical pathway summary

CLINICAL PATHWAY NAME: Colectomy

PATIENT POPULATION AND DIAGNOSIS: Adult patients undergoing elective colorectal resections.

APPLICABLE TO: All Spectrum Health locations

BRIEF DESCRIPTION: To optimize and standardize multidisciplinary perioperative care for patients undergoing colorectal surgery from decision to perform surgery to postoperative follow up appointment.

OPTIMIZED EPIC ELEMENTS:
- UPDATED Preoperative Colorectal Surgery Orderset
- UPDATED Postoperative Colorectal Surgery Orderset
- NEW Colorectal Surgery Discharge Orderset

PATIENT EDUCATION:
- Educational materials included in ordersets
- UPDATED Colorectal Surgery brochure
- NEW patient roadmap

IMPLEMENTATION DATE: October 27, 2022

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Clinical pathways clinical approach

TREATMENT AND MANAGEMENT:
The colectomy pathway aims to reduce surgical site infections with colorectal surgery while also minimizing length of stay which is best done through multiple interventions. This includes elements of both surgical site reduction bundles and enhanced recovery after surgery (ERAS) practices. There is considerable overlap between the bundles and ERAS. The revised order sets support these recommendations.

Appropriate antibiotic use. Timing for appropriate preoperative prophylactic antibiotic administration was clarified. Current guidelines for penicillin allergies suggest reducing the use of alternative antibiotics. Multiple studies now confirm that both oral and intravenous antibiotics are needed to minimize surgical site infections.

Preoperative prophylactic anticoagulation. Surgical patients are often high risk for postoperative DVT and should be considered for preoperative prophylactic anticoagulation use.

Preoperative Alvimopam (Enterog) Alvimopam been shown to reduce narcotic-related post-operative ileus and reduce length of stay in post-operative colorectal patients
Referral to the Surgical Optimization Center (SOC). The majority of patients that require colectomy have additional medical problems. Preoperative management and risk assessment done by the surgical optimization center is preferred in most cases.

Pre- and post-operative order set supports pre and post-operative multimodal pain management. Post-operative pain management has been shown to be better with both multimodal approaches and with preoperative intervention. The increased use of regional anesthetic blocks and long-acting local anesthetics has also greatly reduced narcotic use, overall pain, post-operative ileus, and length of stay.

Post-operative fluid administration. The evidence for outcome improvement by optimizing post-operative fluid administration is well established especially by preventing fluid overload. Intravenous fluids should start at a lower rate and have timed discontinuation parameters.

Appropriate opiate prescribing practices for discharge. The focus on appropriate use of opiates has spurred the creation of suggested appropriate post-operative opiate prescribing. The discharge process for this pathway will help providers by giving them links to these guidelines.

Standardized perioperative patient education. Comprehensive and consistent education should be provided to patients to support positive outcomes and enhance the patient experience.

Pathway information

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CLINICAL PRACTICE COUNCIL (CPC): Digestive Health
CPC APPROVAL DATE: October 27, 2022
OTHER TEAM(S) IMPACTED: Anesthesia, Surgical Optimization Center, surgical office

References

Strategies for Antibiotic Administration for Bowel Preparation Among Patients Undergoing Elective Colorectal Surgery: A Network Meta-analysis.


Male sex, ostomy, infection, and intravenous fluids are associated with increased risk of postoperative ileus in elective colorectal surgery.


Opioid Prescribing Recommendations – Michigan OPEN (michigan-open.org)